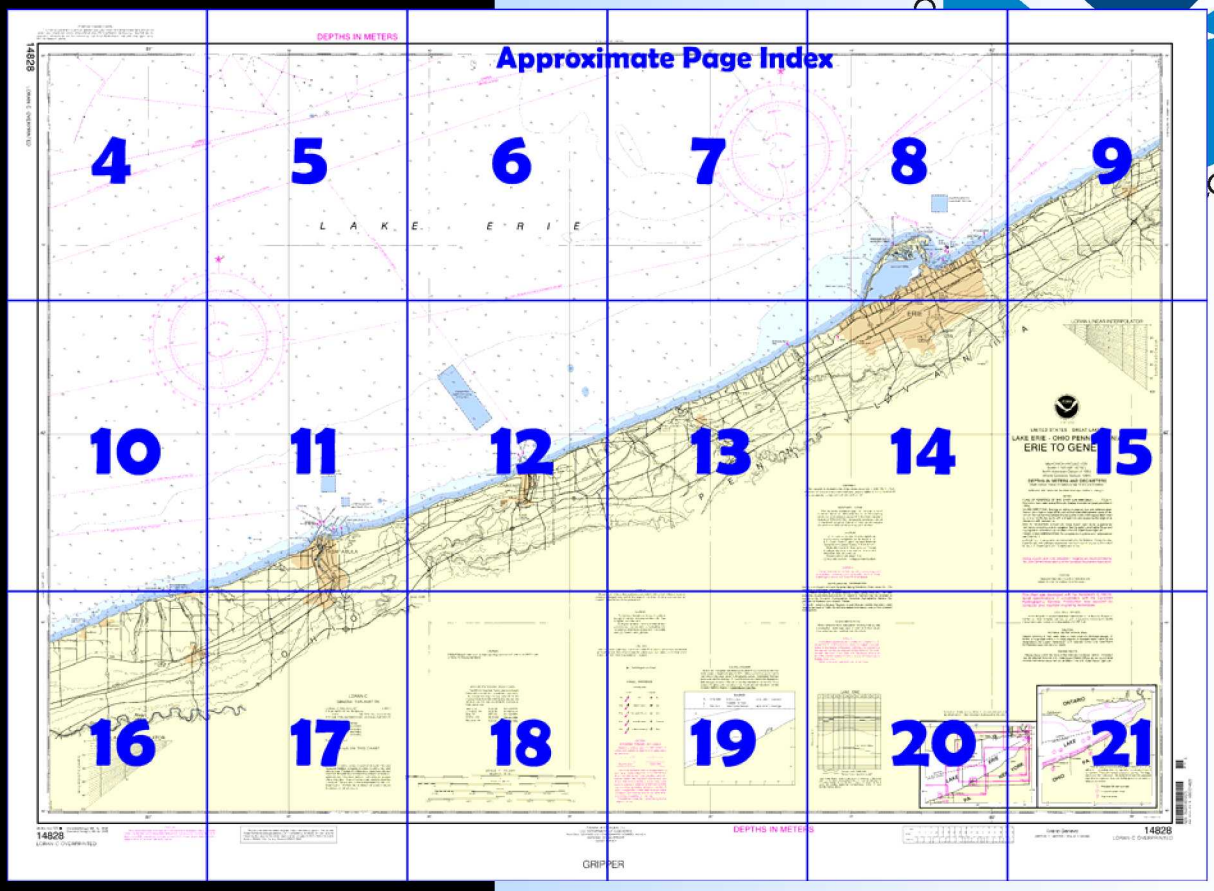
BookletChart™

Erie to Geneva

(NOAA Chart 14828)

A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ☑ *Complete, reduced scale nautical chart*
- ☑ *Print at home for free*
- ☑ *Convenient size*
- ☑ *Up to date with all Notices to Mariners*
- ☑ *United States Coast Pilot excerpts*
- ☑ *Compiled by NOAA, the nation's chartmaker.*



Home Edition (not for sale)

Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
301-713-2770

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

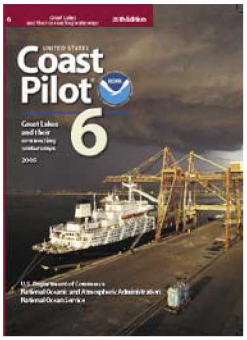
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



[Coast Pilot 6, Chapter 6 excerpts]

(207) Erie Harbor is about 28 miles SW of Barcelona. The intermediate shore has no shoals beyond a distance of about 0.7 mile. The **State boundary** between New York and Pennsylvania is about 10 miles SW of Barcelona.

(208) **Presque Isle** (42°10.4'N., 80°04.8'W.) is an irregularly shaped peninsula forming nearly landlocked Erie Harbor. The peninsula is connected to the mainland by a narrow neck at the W end and broadens as it curves around to the NE and E. The entrance to Erie Harbor is on the S side of the E end of the peninsula. Presque Isle State Park is on the peninsula.

Presque Isle Light (42°09.9'N., 80°06.9'W.), 73 feet above the water, is shown from a white square tower with an attached red dwelling on the NW shore of the peninsula. Numerous shore protection structures extend lake ward from the lakeside of the peninsula. Small-craft operators are cautioned to keep 500 feet offshore in the vicinity of these structures.

(209) **Erie Harbor**, about 78 miles SW of Buffalo, is in **Presque Isle Bay,** enclosed from the lake by Presque Isle. The bay opens to the E and is about 4.5 miles long and 1.5 miles wide. Erie Harbor, serving the city of **Erie, Pa.,** is in the SE part of the bay.

(212) **Erie Harbor Pierhead Light** (42°09.4'N., 80°04.3'W.), 42 feet above the water, is shown from a black and white horizontally banded square tower on the outer end of the N entrance pier. A fog signal is at the light.

(215) **Misery Bay** is an indentation in the S side of Presque Isle N of Erie Harbor Entrance Channel. The bay has depths of 5 to 10 feet except for shoaling along the edges. A rock which bares is on the E side of the bay on the S side of the channel leading to **Horse Shoe Pond.**

(237) A municipal marina, protected by breakwaters, is S of the Erie Harbor entrance channel. The marina entrance is marked by private lights.

(241) **Conneaut Harbor**, serving **Conneaut, Ohio,** is about 107 miles SW of Buffalo and about 73 miles NE of Cleveland. It comprises an outer harbor sheltered by breakwaters and an inner harbor in the lower part of the **Conneaut River.**

(244) **Conneaut Harbor West Breakwater Light** (41°58'48"N., 80°33'30"W.), 80 feet above the water, is shown from a square pyramidal tower on the outer end of the breakwater.

(248) Vessels approaching the harbor from the E are cautioned to not mistake the lights on the piers at the river mouth for the breakwater lights. Use of the gap in the W breakwater should be strictly avoided, because of a large shoal area in the outer harbor W of the municipal pier.

(249) In December 1978, a large anchor was reported lost in the E part of the outer harbor in about 41°58'33.3"N., 80°33'03.8"W.

(255) A **speed limit** of 6 mph (5.2 knots) is enforced in the harbor except in the outer harbor where the speed limit is 10 mph (8.7 knots).

(302) Several marinas on the Ashtabula River provide transient berths, gasoline, diesel fuel, water, ice, electricity, sewage pump-out, marine supplies, and a launching ramp. Mobile lifts to 40 tons are available for hull, engine, and electronic repairs. In 1977, depths of 8 to 16 feet were reported alongside the berths.

(304) From Ashtabula SW for 27 miles to Fairport, the shore continues as a series of low wooded hills and small communities. Deep water is about 1 mile offshore. A sunken wreck, covered 10 feet, is about 0.6 mile offshore about 15 miles SW of Ashtabula. A boulder, covered 15 feet, is about 3 miles ENE of the entrance to Fairport Harbor.

Table of Selected Chart Notes

Corrected through NM Apr. 30/05
Corrected through LNM Apr. 26/05

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Pipeline Area *Cable Area*

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Akron, OH	KDO-94	162.400 MHz
Cleveland, OH	KHB-59	162.550 MHz
Erie, PA	KEC-58	162.400 MHz
Grafton, OH	WNG-698	162.500 MHz
Meadville, PA	KZZ-32	162.475 MHz

A

LAKE ERIE
FISH NETTING AREAS

Various types of nets are employed in Lake Erie of which gill nets, impounding nets and trap nets may create a hazard to mariners. These are marked by buoys or stakes. This diagram shows the areas most intensively fished and the principal type of nets employed. However, fishing gear may be encountered at any location.

1. Principal Gill Netting Areas
2. Impounding Net Areas
3. Trap Net Areas

Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

LORAN-C

GENERAL EXPLANATION

LORAN-C FREQUENCY.....100kHz
PULSE REPETITION INTERVAL
9960.....99,600 Microseconds
STATION TYPE DESIGNATORS: (Not individual station letter designators).
M..... Master
W..... Secondary
X..... Secondary
Y..... Secondary
Z..... Secondary

EXAMPLE: 9960-X

RATES ON THIS CHART

Loran-C correction tables published by the National Geospatial-Intelligence Agency or others should not be used with this chart. The lines of position shown have been adjusted based on theoretically determined overland signal propagation delays. They have not been verified by comparison with survey data. Every effort has been made to meet the ¼ nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the lattices in inshore waters.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Buffalo, New York.

Refer to charted regulation section numbers.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System of 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 do not require conversion to NAD 83 for plotting on this chart.

Additional information can be obtained at nauticalcharts.noaa.gov.

SOURCE DIAGRAM

Most of the hydrography identified by the letter "j" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Other outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

SAILING DIRECTIONS. Bearings on sailing courses are true and distances given thereon are in statute miles (St M) and nautical miles (NM) between points of departure. The true bearing between any two points on this chart may be determined by connecting the two points with a straight line and measuring the angle of its intersection with meridian line.

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. See Canadian List of Lights, Buoys and Fog Signals for information not included in the U.S. Coast Guard Light List.

PLANE OF REFERENCE OF THIS CHART (Low Water Datum) .....173.50 m. Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

AUTHORITIES. Hydrography and topography by the National Ocean Service, Coast Survey, with additional information from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and Canadian authorities.

RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other privately maintained buoys are not all listed in the U.S. Coast Guard Light List.

SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 and Canadian Sailing Directions, Great Lakes, Vol. 1 for important supplemental information.

Information concerning Canadian Nautical Charts, Sailing Directions, Tide Table and other Government publications of interest to mariners may be obtained on request to the Dominion Hydrographer, Canadian Hydrographic Service, Department of Fisheries and Oceans, Ottawa.

For the St. Lawrence Seaway Regulations and Circulars, special equipment, radio frequencies used in Traffic Control and related information, refer to THE SEAWAY HANDBOOK.

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

CAUTION
POTABLE WATER INTAKE (PWI)

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Surgeon General (21 CFR 1250.93). Consult U.S. Coast Pilot 6 for important supplemental information.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association.

NOTE D

Mariners are warned that numerous uncharted stakes and fishing structures, some submerged, may exit in the area of this chart. Such structures are not charted unless known to be permanent.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

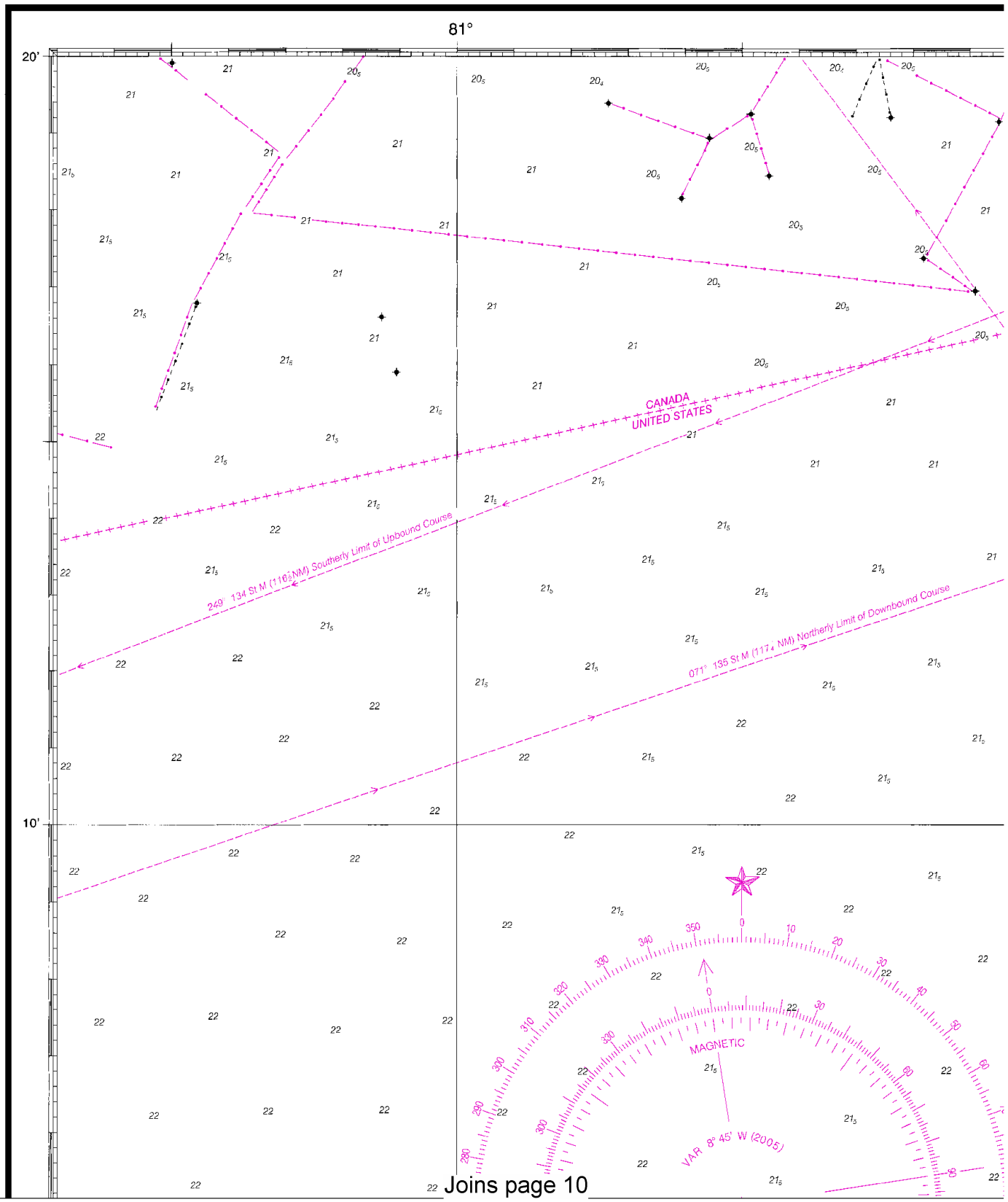
This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

PRINT-ON-DEMAND CHARTS

This chart is available in a version updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts.

14828

LORAN-C OVERPRINTED



Joins page 10

4

North

Printed at reduced scale. ~~SCALE 1:100,000~~

Nautical Miles

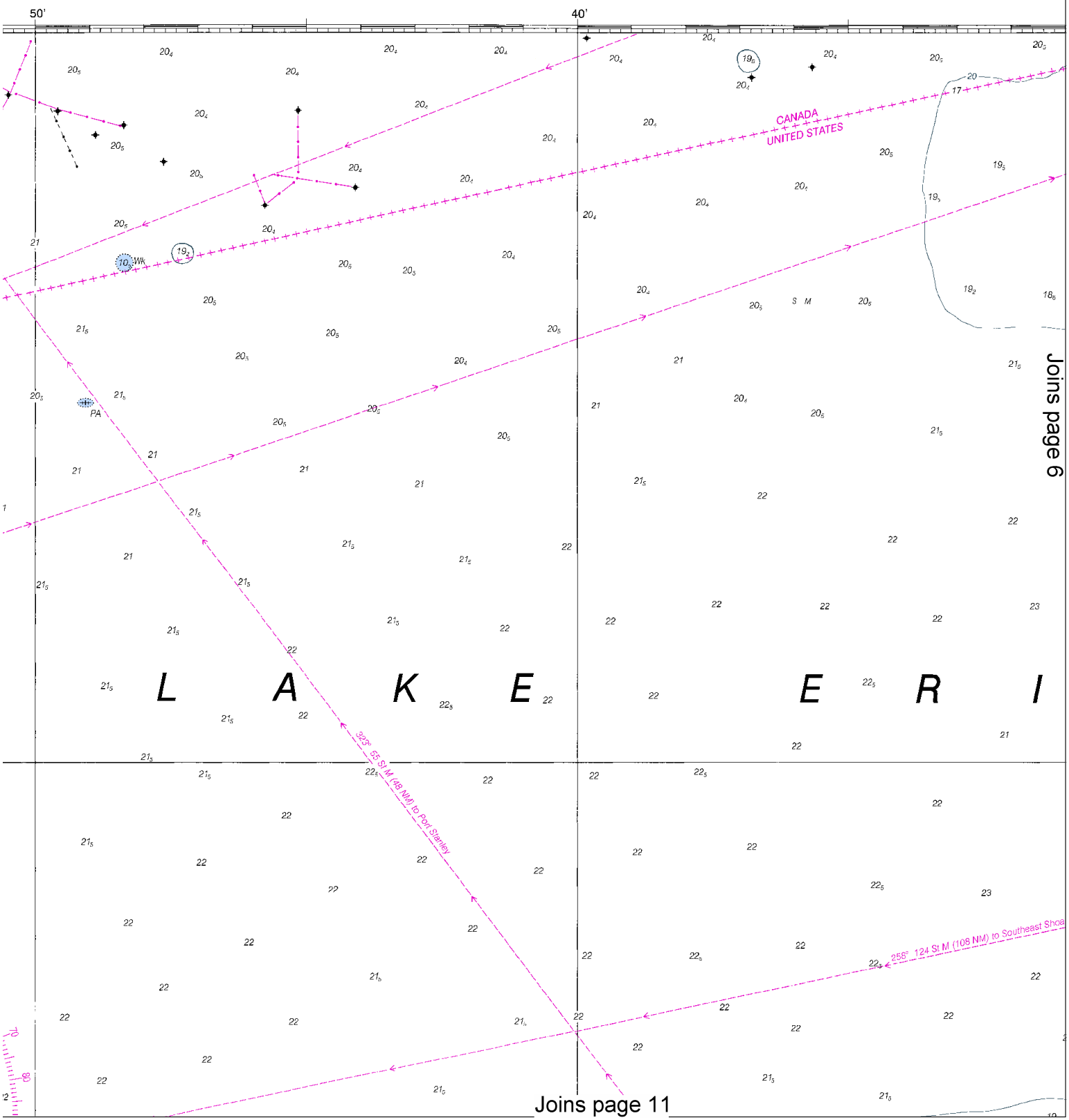
1 0 1 2 3 4 5 6 7 8 9

Yards

2000 0 2000 4000 6000 8000 10000 12000

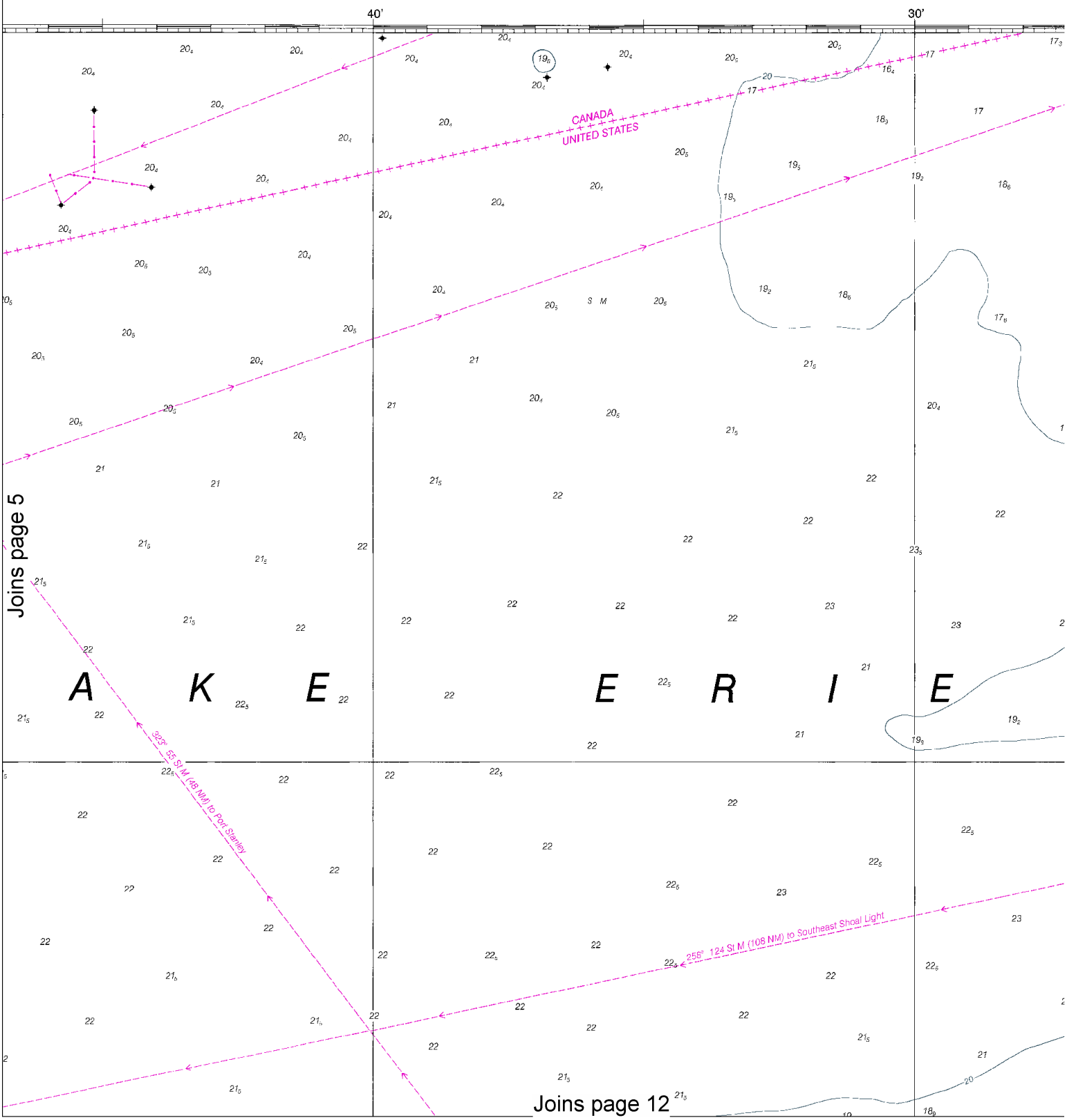
See Note on page 5.

DEPTHS IN METERS



This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:133333. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

1st Ed., Jan.



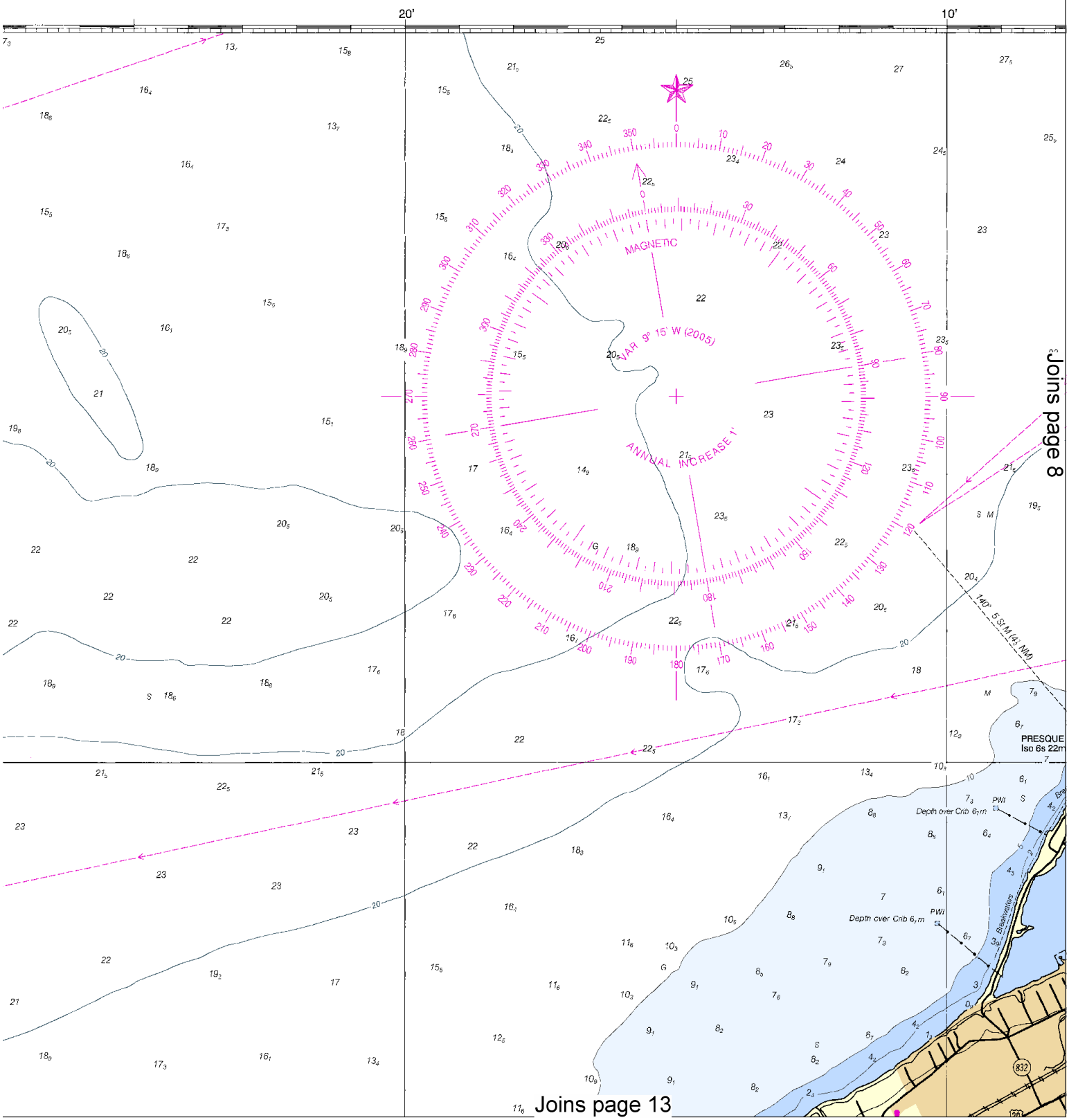
North

Printed at reduced scale. ~~SCALE 1:100,000~~

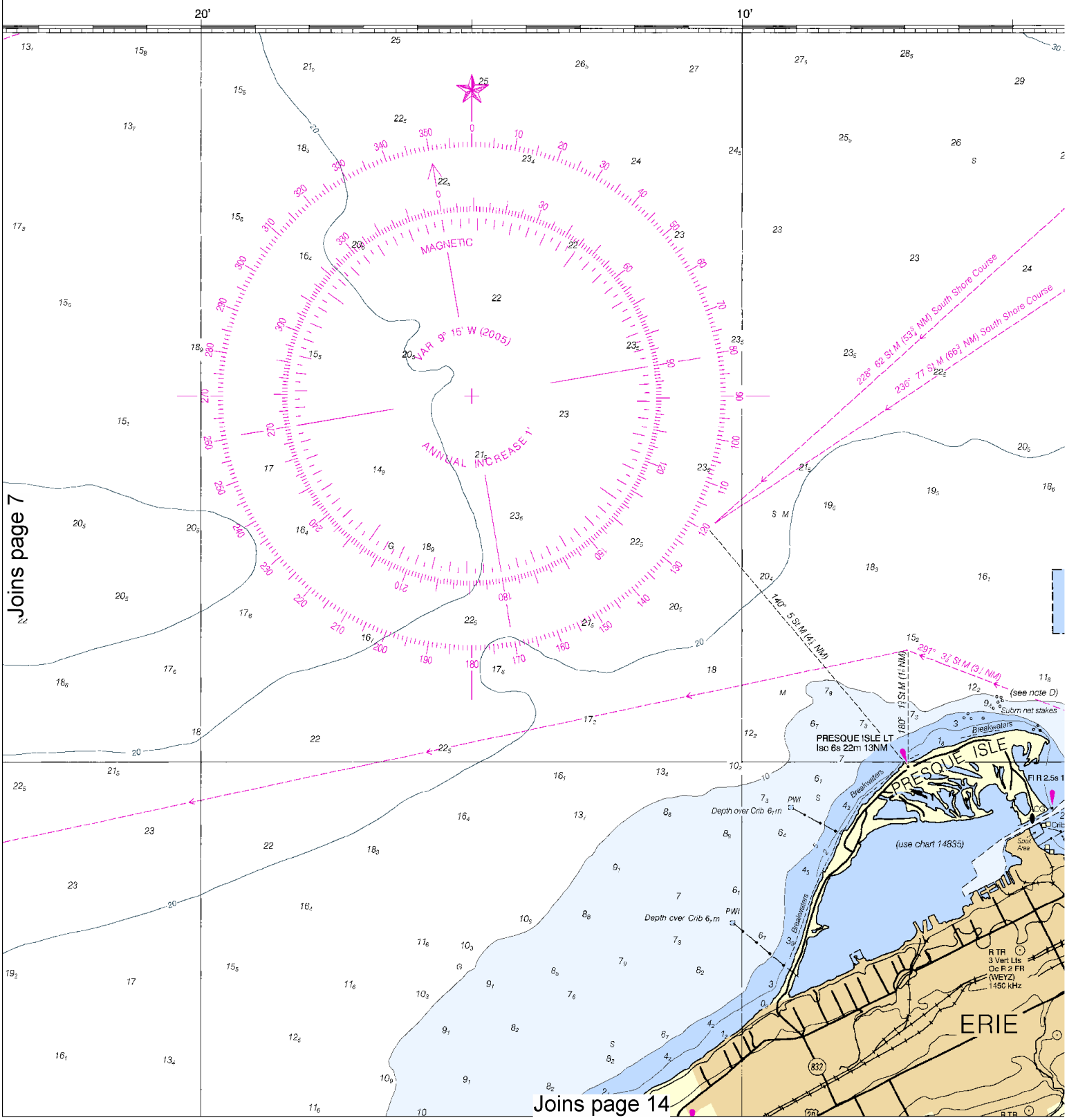
Nautical Miles 1 0 1 2 3 4 5 6 7 8 9

Yards 2000 0 2000 4000 6000 8000 10000 12000

See Note on page 5.



This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 0710 2/16/2010,
NGA Weekly Notice to Mariners: 0910 2/27/2010,
Canadian Coast Guard Notice to Mariners: 0110 1/29/2010.



North

Printed at reduced scale. ~~SCALE 1:100,000~~

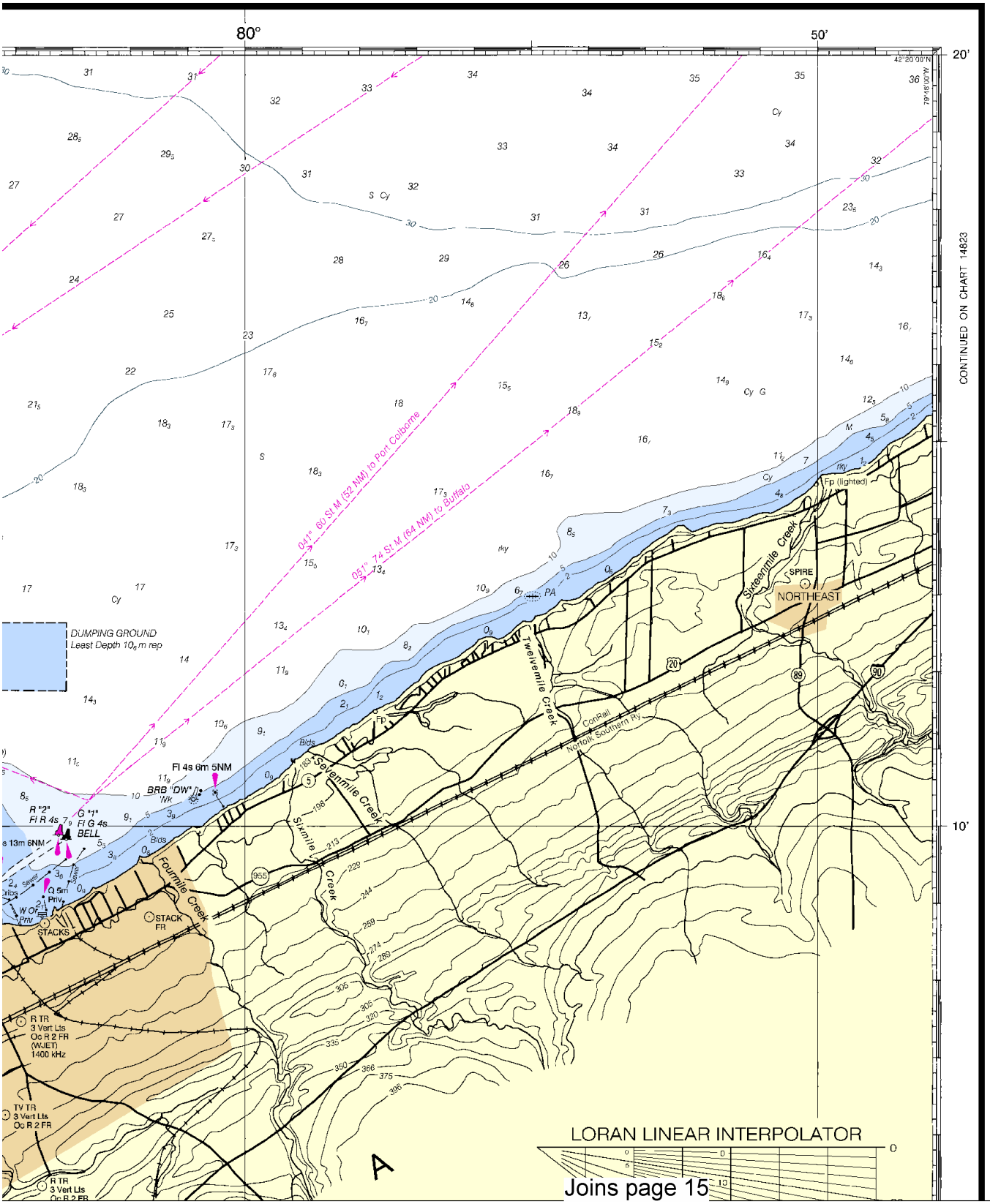
Nautical Miles

1 0 1 2 3 4 5 6 7 8 9

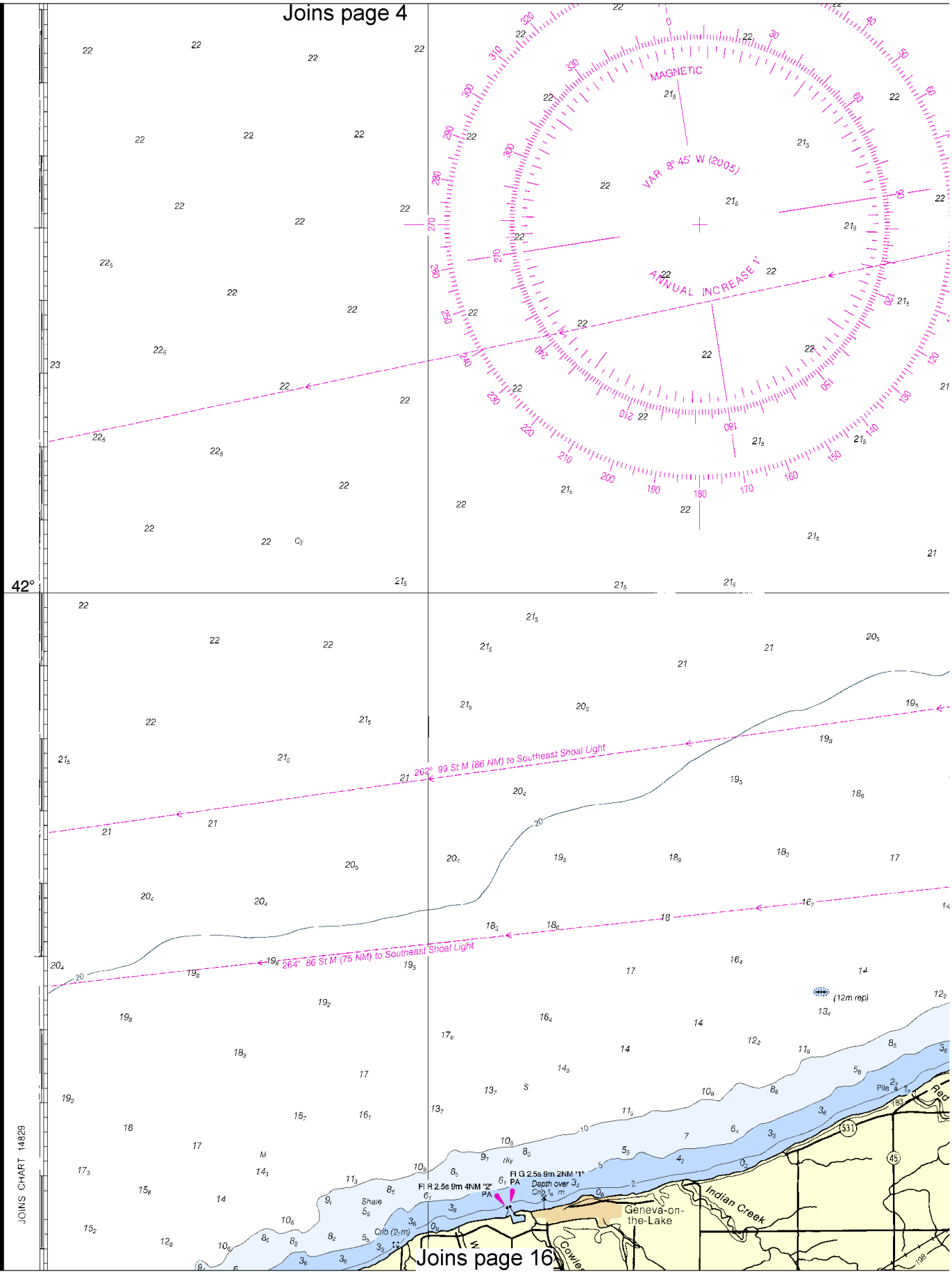
Yards

2000 0 2000 4000 6000 8000 10000 12000

See Note on page 5.


80°
50'
20'
10'
42°20.00'N
79°18'00"W
CONTINUED ON CHART 14823
041° 60 St M (52 NM) to Port Colborne
051° 74 St M (64 NM) to Buffalo
DUMPING GROUND
Least Depth 10.6 m rep
Fl 4s 6m 5NM
BRB "DW"
Wk
R "2"
Fl R 4s
G "1"
Fl G 4s
BELL
Fl 4s 13m 6NM
Q 6m
Priv
W Or
Priv
STACKS
STACK
FR
Fourmile Creek
Sevenmile Creek
Sixmile Creek
Twelvemile Creek
Fp
Bldg
PA
Fp (lighted)
SPIRE
NORTHEAST
Sixteenmile Creek
ConRail
Norfolk Southern Ry
20
89
90
955
R TR
3 Vert Lts
Oc R 2 FR
(WJET)
1400 kHz
TV TR
3 Vert Lts
Oc R 2 FR
R TR
3 Vert Lts
Oc R 2 FR
LORAN LINEAR INTERPOLATOR
A
Joins page 15

Joins page 4



Joins page 16

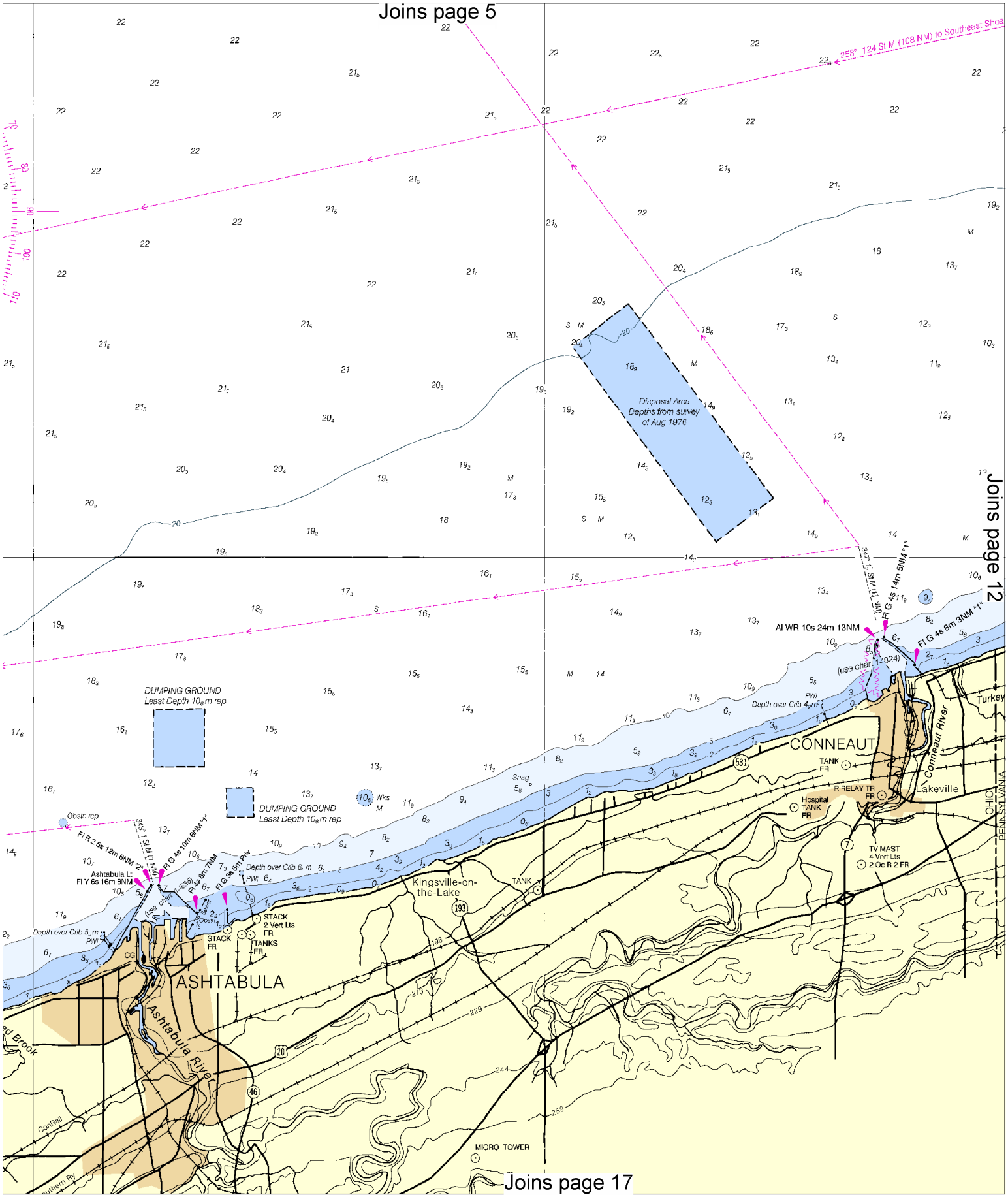
North

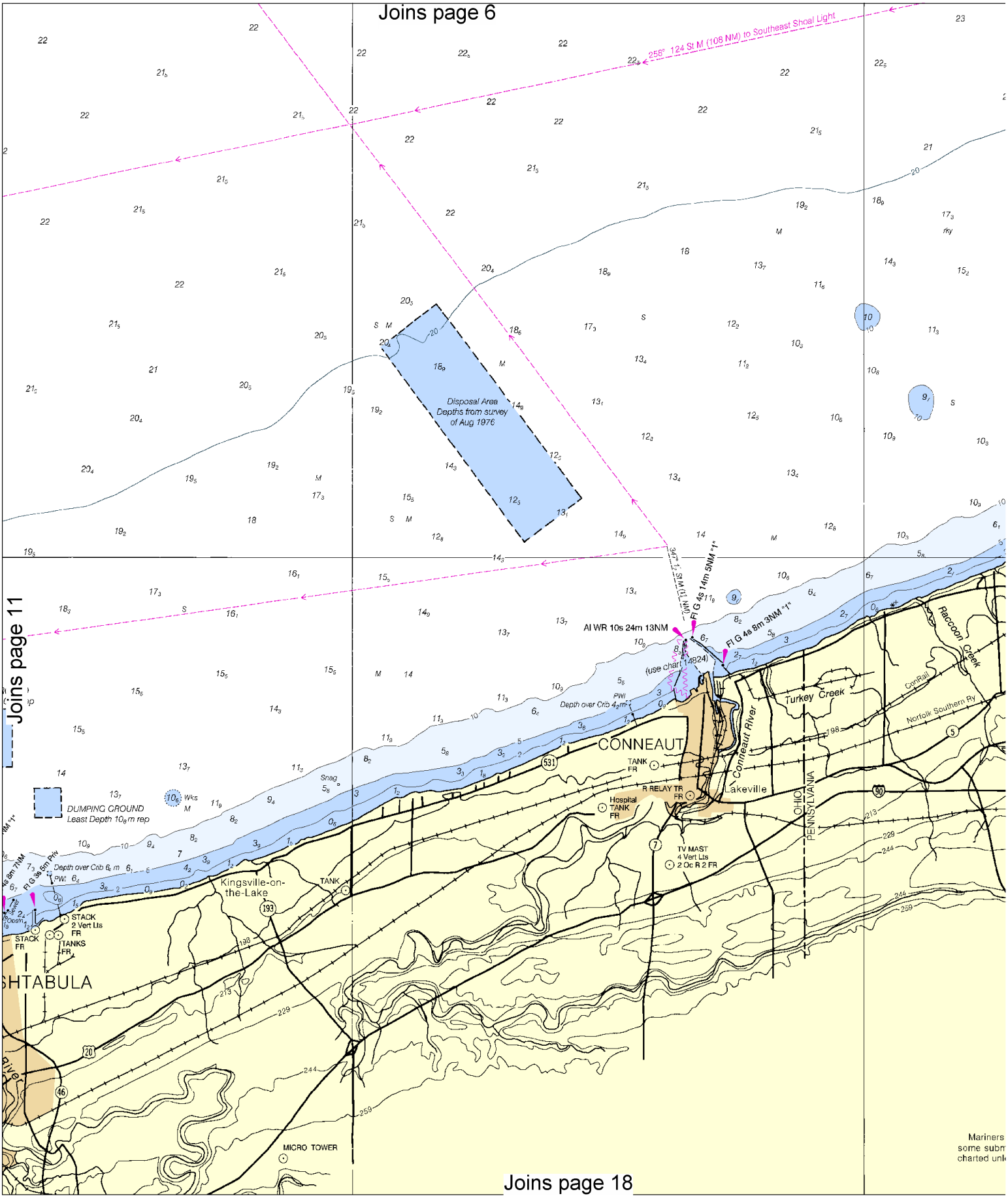
Printed at reduced scale. ~~SCALE 1:100,000~~

Nautical Miles 1 0 1 2 3 4 5 6 7 8 9

Yards 2000 0 2000 4000 6000 8000 10000 12000

See Note on page 5.


Joins page 5
Joins page 12
Joins page 17
256° 12.4 St.M (108 NM) to Southeast Shoal
Disposal Area
Depths from survey
of Aug 1976
DUMPING GROUND
Least Depth 10.6 m rep
DUMPING GROUND
Least Depth 10.6 m rep
Obstn rep
Fl R 2.5s 12m 6NM "2"
Fl G 4s 10m 8NM "1"
Ashtabula Lt
Fl Y 6s 16m 8NM
Fl G 4s 9m 7NM
Fl G 3s 5m Priv
Depth over Crib 6.4 m
PWI
Depth over Crib 5.2 m
PWI
Obstn
STACK
2 Vert Lts
FR
STACK
FR
TANKS
FR
CG
ASHTABULA
Ashtabula River
ConRail
Buttern Ry
MICRO TOWER
Kingsville-on-
the-Lake
TANK
Al WR 10s 24m 13NM
Fl G 4s 14m 5NM "1"
Fl G 4s 8m 3NM "1"
(use chart 14824)
PWI
Depth over Crib 4.2 m
CONNEAUT
TANK
FR
R RELAY TR
FR
Hospital
TANK
FR
Conneaut River
Lakeville
Turkey
TV MAST
4 Vert Lts
2 Oc R 2 FR
OHIO
PENNSYLVANIA
Snag
Wks
M
S
M
531
193
20
46



12

North

Printed at reduced scale. ~~SCALE 1:100,000~~

Nautical Miles

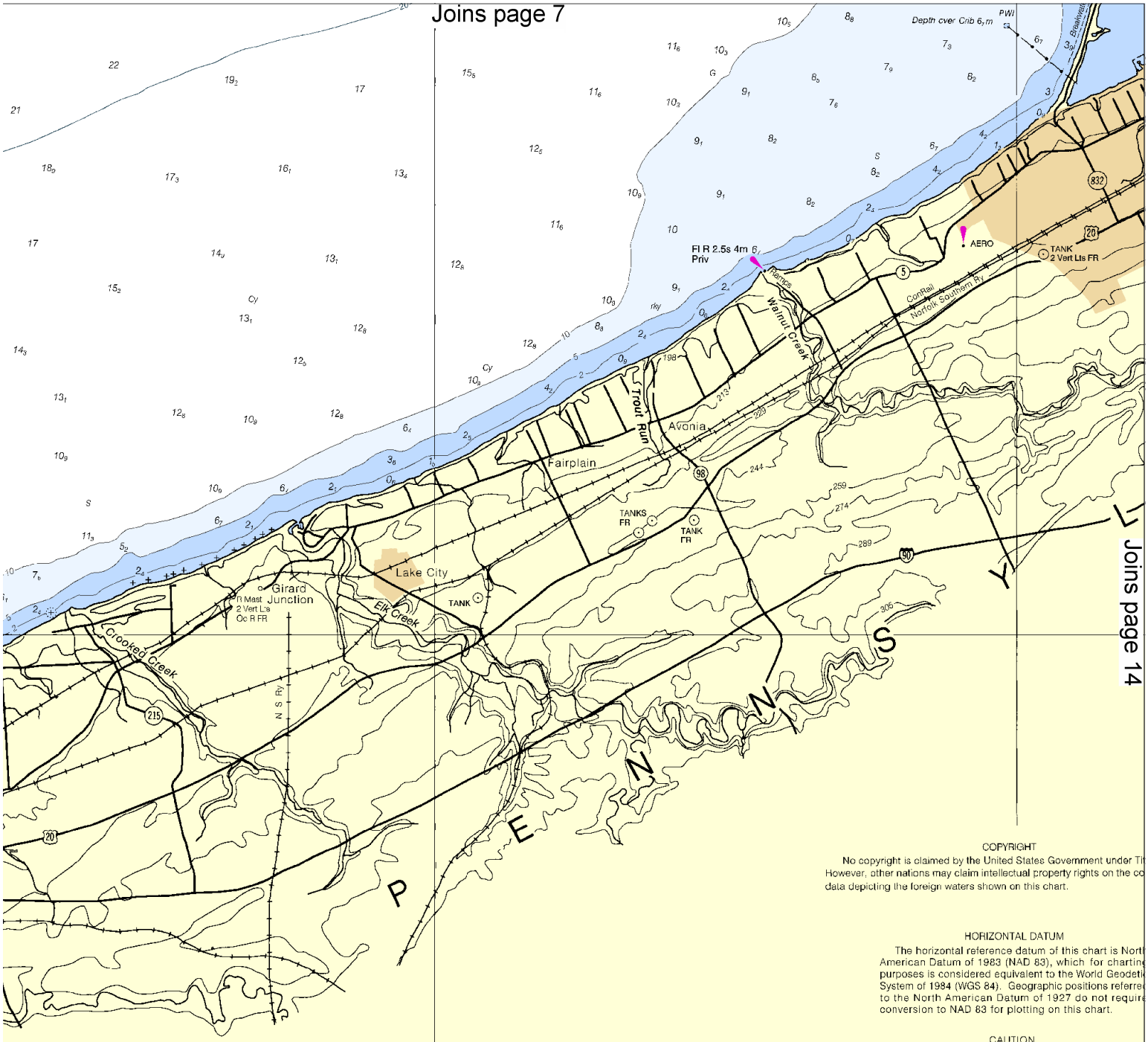
1 0 1 2 3 4 5 6 7 8 9

Yards

2000 0 2000 4000 6000 8000 10000 12000

See Note on page 5.

Joins page 7



Joins page 14

COPYRIGHT

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However, other nations may claim intellectual property rights on the co
data depicting the foreign waters shown on this chart.

HORIZONTAL DATUM

The horizontal reference datum of this chart is Nort
American Datum of 1983 (NAD 83), which for charting
purposes is considered equivalent to the World Geodeti
System of 1984 (WGS 84). Geographic positions referre
to the North American Datum of 1927 do not require
conversion to NAD 83 for plotting on this chart.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

NOTE D

rs are warned that numerous uncharted stakes and f shing structures, omerged, may exit in the area of this chart. Such structures are not nless known to be permanent.

SUPPLEMENTAL INFORMATION

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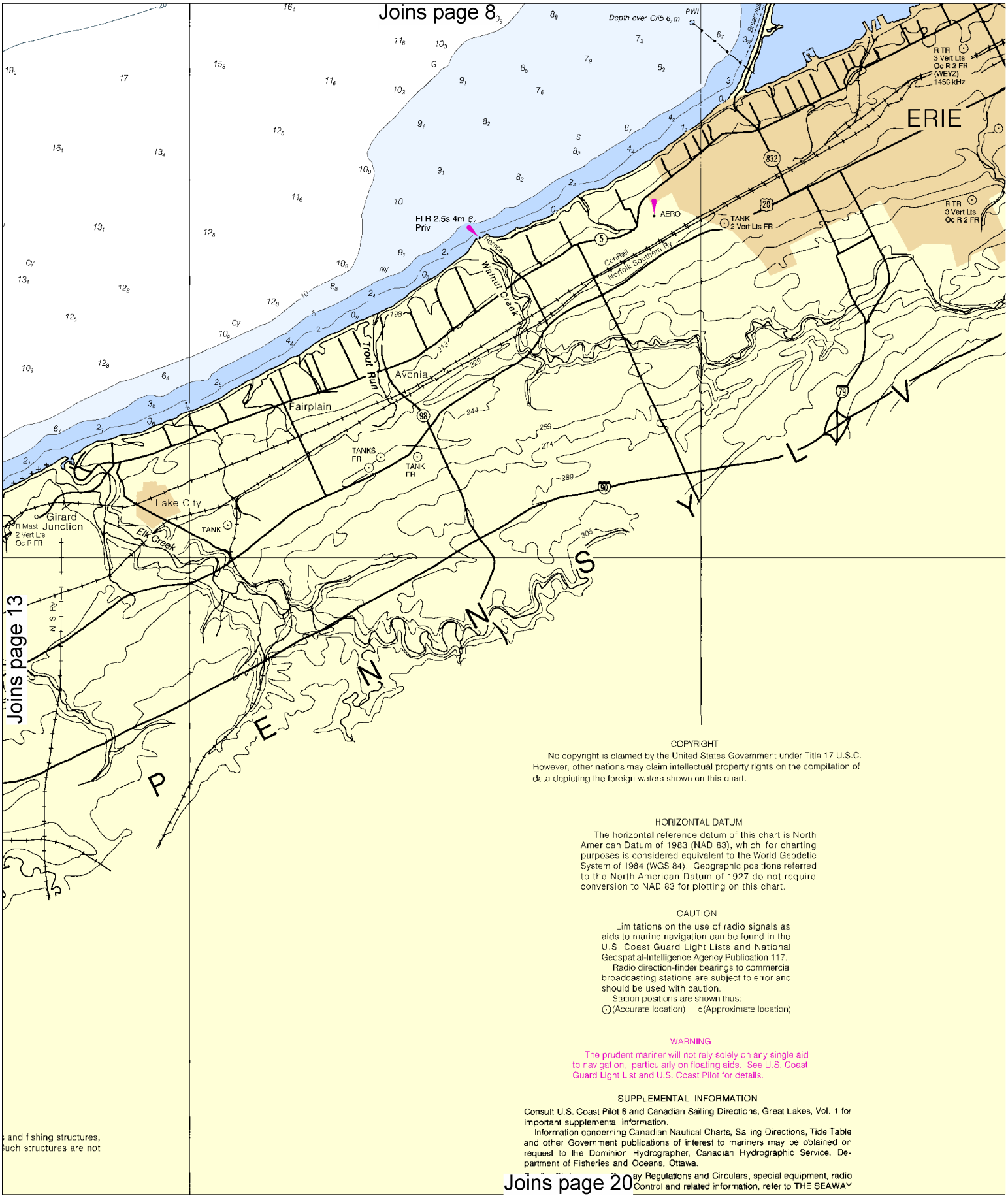
Information concerning Canadian Nautical Charts, Sailing Directions, T and other Government publications of interest to mariners may be ob request to the Dominion Hydrographer, Canadian Hydrographic Ser partment of Fisheries and Oceans, Ottawa.

For the St. Lawrence Seaway Regulations and Circulars, special equipm frequencies used in Traffic Control and related information, refer to THE

Joins page 19



North

Printed at reduced scale. ~~SCALE 1:100,000~~

Nautical Miles

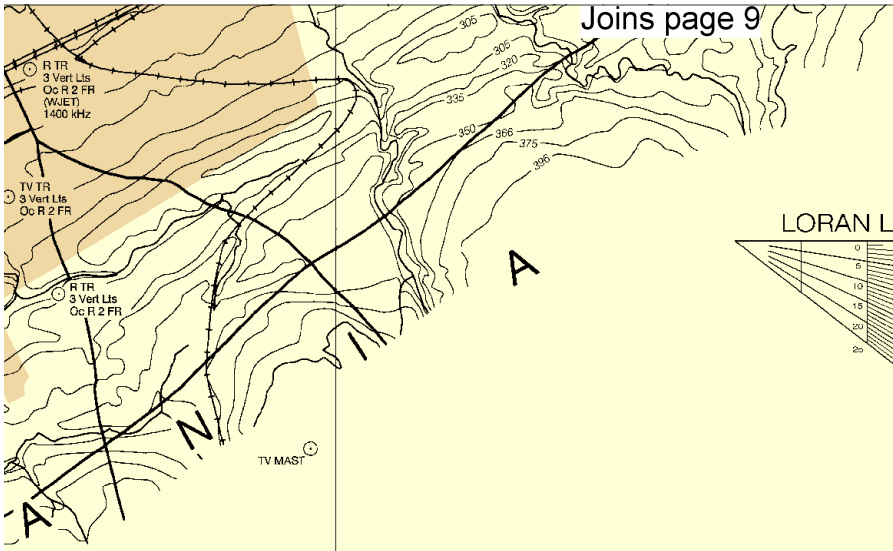
1 0 1 2 3 4 5 6 7 8 9

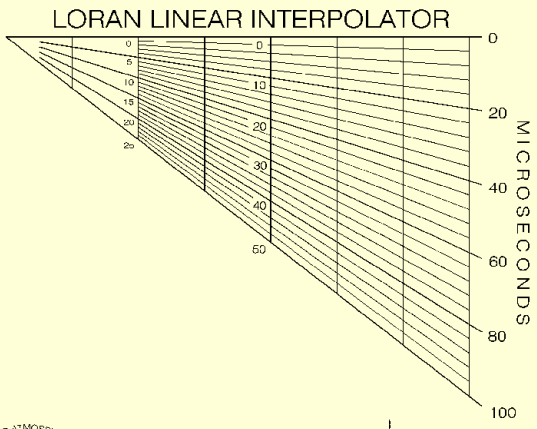
Yards

2000 0 2000 4000 6000 8000 10000 12000

See Note on page 5.

Joins page 9





NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
COAST SURVEY

UNITED STATES - GREAT LAKES

42°

LAKE ERIE - OHIO PENNSYLVANIA

ERIE TO GENEVA

MERCATOR PROJECTION
Scale 1:100,000 (42°00')
North American Datum of 1983
(World Geodetic System 1984)

DEPTHS IN METERS AND DECIMETERS
Depth contour interval 10 meters (Under 10 at 2 and 5 meters)

Additional information can be obtained at nauticalcharts.noaa.gov.

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum) .....173.50 m. Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

SAILING DIRECTIONS. Bearings on sailing courses are true and distances given thereon are in statute miles (St M) and nautical miles (NM) between points of departure. The true bearing between any two points on this chart may be determined by connecting the two points with a straight line and measuring the angle of its intersection with meridian line.

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. See Canadian List of Lights, Buoys and Fog Signals for information not included in the U.S. Coast Guard Light List.

SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1.

AUTHORITIES. Hydrography and topography by the National Ocean Service, Coast Survey, with additional information from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and Canadian authorities.

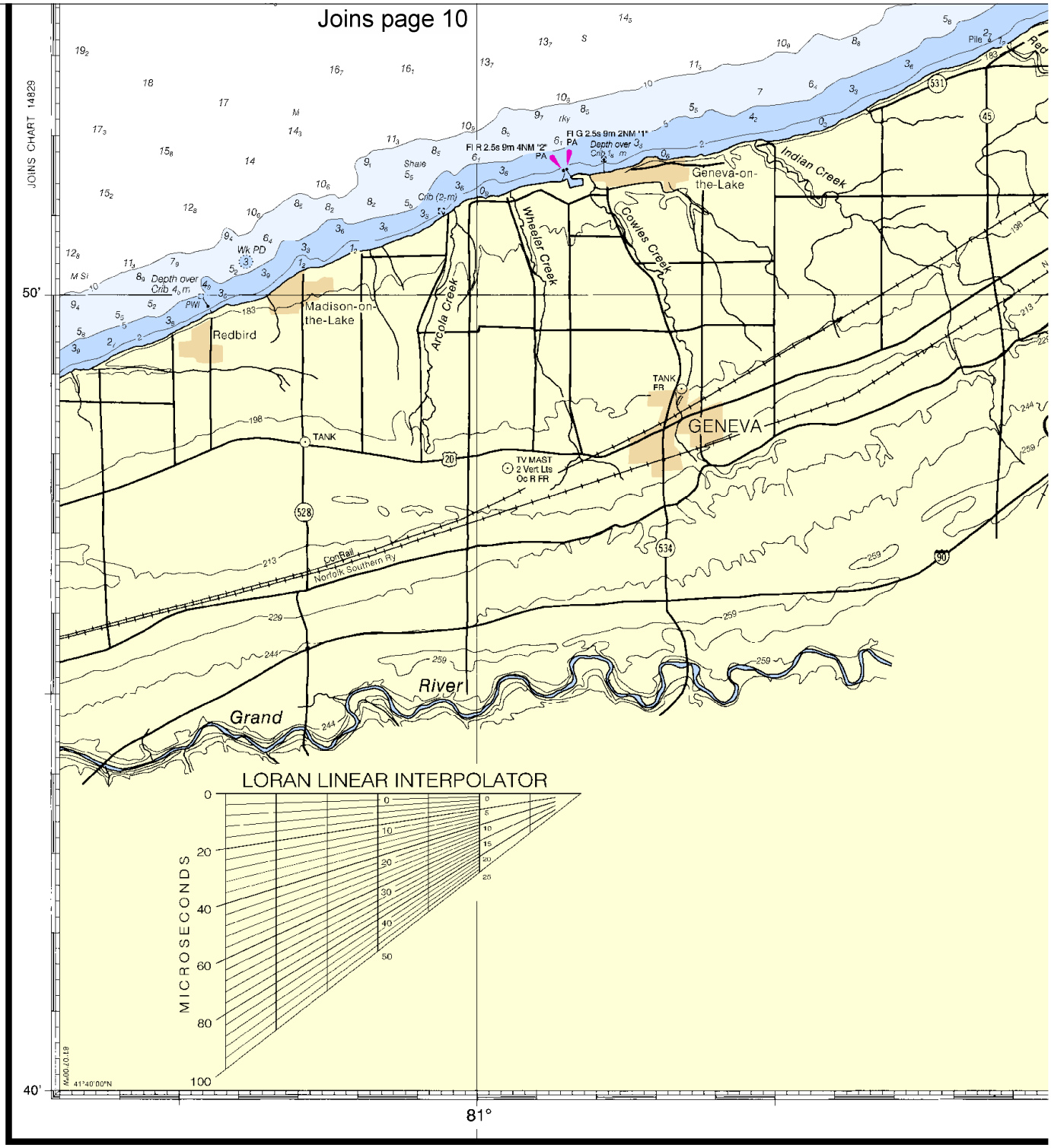
Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

This chart was developed with the framework of international specifications in cooperation with the Canadian Hydrographic Service. Production was assisted by computer and machine engra

Joins page 21



6th Ed., Apr./05 ■ Corrected through NM Apr. 30/05
Corrected through LNM Apr. 26/05

14828

LORAN-C OVERPRINTED

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

This nautical chart has been des
Ocean Service encourages users to s
improving this chart to the Chief, M
Service, NOAA, Silver Spring, Maryl

North

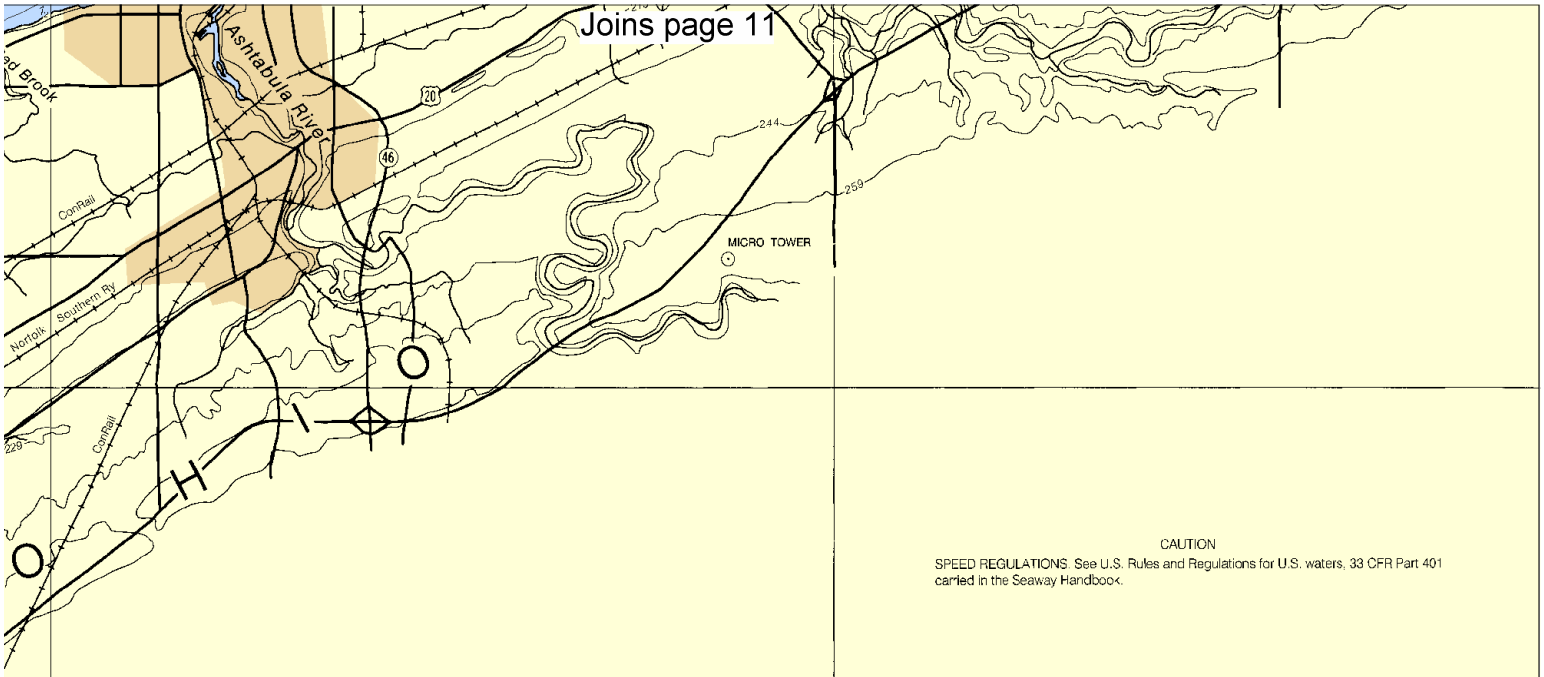
Printed at reduced scale. ~~SCALE 1:100,000~~

Nautical Miles: 1 0 1 2 3 4 5 6 7 8 9

Yards: 2000 0 2000 4000 6000 8000 10000 12000

See Note on page 5.

Joins page 11



CAUTION

SPEED REGULATIONS. See U.S. Rules and Regulations for U.S. waters, 33 CFR Part 401 carried in the Seaway Handbook.

LORAN-C

GENERAL EXPLANATION

LORAN-C FREQUENCY..... ....100kHz
PULSE REPETITION INTERVAL
9960.....99,600 M croseconds
STATION TYPE DESIGNATORS: (Not individual station letter designators).

M..... Master
W..... Secondary
X..... Secondary
Y..... Secondary
Z..... Secondary

EXAMPLE: 9960-X

RATES ON THIS CHART

Loran-C correction tables published by the National Geospatial-Inte ligence Agency or others should not be used with this chart. The lines of position shown have been adjusted based on theoretically determined overland signal propagation delays. They have not been verified by comparison with survey data. Every effort has been made to meet the ¼ nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the lattices in inshore waters.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Akron, OH	KDO-94	162.400 MHz
Cleveland, OH	KHB-59	162.550 MHz
Erie, PA	KEC-58	162.400 MHz
Grafton, OH	WNG-698	162.500 MHz
Meadville, PA	KZZ-32	162.475 MHz

Joins page 18

SCALE 1:100,000

Nautical Miles
1 0 1 2 3 4 5 6

Statute Miles
1 0 1 2 3 4 5 6 7

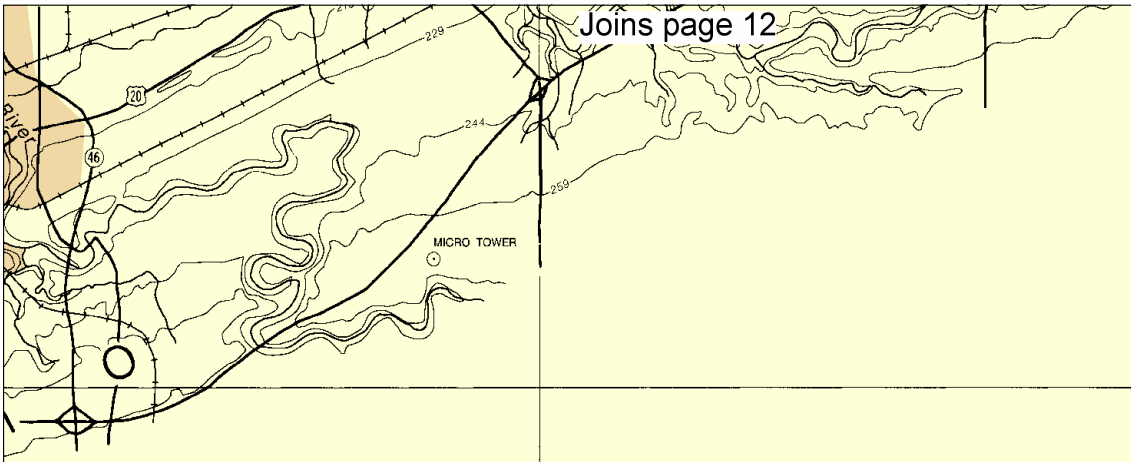
Yards
2000 0 2000 4000 6000 8000 10000

Meters
2000 0 2000 4000 6000 8000 10000

50' 40'

lesigned to promote safe navigation. The National
c submit corrections, additions, or comments for
Marine Chart Division (N/CS2), National Ocean
ryland 20910-3282.

Joins page 12



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CAUTION

SPEED REGULATIONS. See U.S. Rules and Regulations for U.S. waters, 33 CFR Part 401 carried in the Seaway Handbook.

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Grafton, OH	WNG-698	162.500 MHz
Meadville, PA	KZZ-32	162.475 MHz

LORAN-C

GENERAL EXPLANATION

N-C FREQUENCY..... ....100kHz
REPETITION INTERVAL
960.....99,600 M croseconds
PE DESIGNATORS: (Not individual station
ators).
..... Master
..... Secondary
..... Secondary
..... Secondary
..... Secondary

960-X

Joins page 17

ATES ON THIS CHART

an-C correction tables published by the National
atial-Inte ligence Agency or others should not be used
chart. The lines of position shown have been adjusted
on theoretically determined overland signal propa-
delays. They have not been verified by comparison
rvey data. Every effort has been made to meet the
ical mile accuracy criteria established by the U.S.
Guard. Mariners are cautioned not to rely solely on
ices in inshore waters.

SCALE 1:100,000

Nautical Miles
1 0 1 2 3 4 5 6 7 8 9

Statute Miles
1 0 1 2 3 4 5 6 7 8 9

Yards
2000 0 2000 4000 6000 8000 10000 12000

Meters
2000 0 2000 4000 6000 8000 10000 12000

40' 30'

Published at Was
U.S. DEPARTMENT
NATIONAL OCEANIC AND ATMC
NATIONAL OCE
COAST SU

GRIPF

North

Printed at reduced scale.

SCALE 1:100,000

Nautical Miles
1 0 1 2 3 4 5 6 7 8 9

Yards
2000 0 2000 4000 6000 8000 10000 12000

See Note on page 5.

Joins page 13

Station positions are shown thus:
⊙(Accurate location) ○(Approximate location)

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 and Canadian Sailing Directions, Great Lakes, important supplemental information.

Information concerning Canadian Nautical Charts, Sailing Directions, T and other Government publications of interest to mariners may be ob request to the Dominion Hydrographer, Canadian Hydrographic Ser partment of Fisheries and Oceans, Ottawa.

For the St. Lawrence Seaway Regulations and Circulars, special equipm frequencies used in Traffic Control and related information, refer to THE HANDBOOK.

NOTE D

rs are warned that numerous uncharted stakes and f shing structures, omerged, may exit in the area of this chart. Such structures are not inless known to be permanent.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

CAUTION

periodic high water conditions in the Great Lakes, some features charted e at Low Water Datum may be submerged, particularly in the near shore lariners should proceed with caution.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Buffalo, New York.

Refer to charted regulation section numbers.

✦ Submerged well head

SOURCE DIAGRAM

Most of the hydrography identified by the letter "j" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Other outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

SYMBOL REFERENCE

Floating Aids

	Lighted		Unlighted
Pillar	Red	Nun	
Pillar	Black or Green	Can	
Pillar	Horizontally Banded	Can	
Pillar	Vertically Striped	Spherical	
Pillar	Vertically Striped Bell	Pillar	

CAUTION

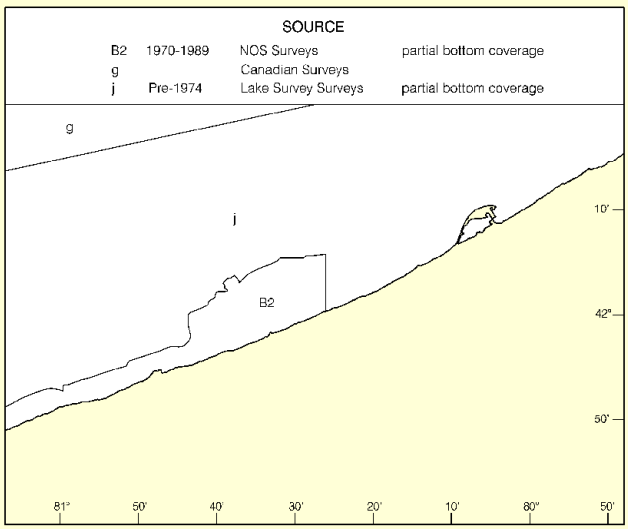
SUBMARINE PIPELINES AND CABLES

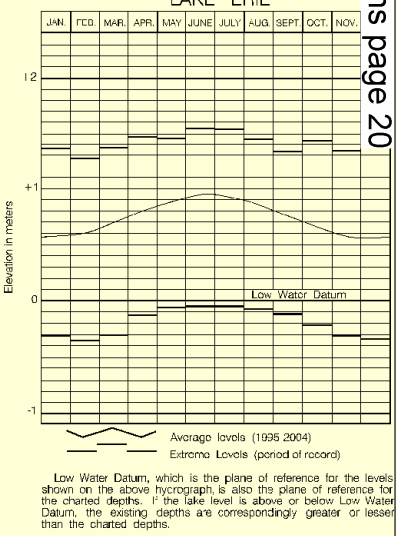
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Pipeline Area *Cable Area*

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.





Low Water Datum, which is the plane of reference for the levels shown on the above hycrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

Joins page 20

20' 10'

ashington, D.C.
T OF COMMERCE
MOSPHERIC ADMINISTRATION
EAN SERVICE
SURVEY

DEPTHS IN METERS

PER

Joins page 14

Station positions are shown thus:
⊙(Accurate location) ○(Approximate location)

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 and Canadian Sailing Directions, Great Lakes, Vol. 1 for important supplemental information.

Information concerning Canadian Nautical Charts, Sailing Directions, Tide Table and other Government publications of interest to mariners may be obtained on request to the Dominion Hydrographer, Canadian Hydrographic Service, Department of Fisheries and Oceans, Ottawa.

For the St. Lawrence Seaway Regulations and Circulars, special equipment, radio frequencies used in Traffic Control and related information, refer to THE SEAWAY HANDBOOK.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

NOTE A

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Refer to charted regulation section numbers.

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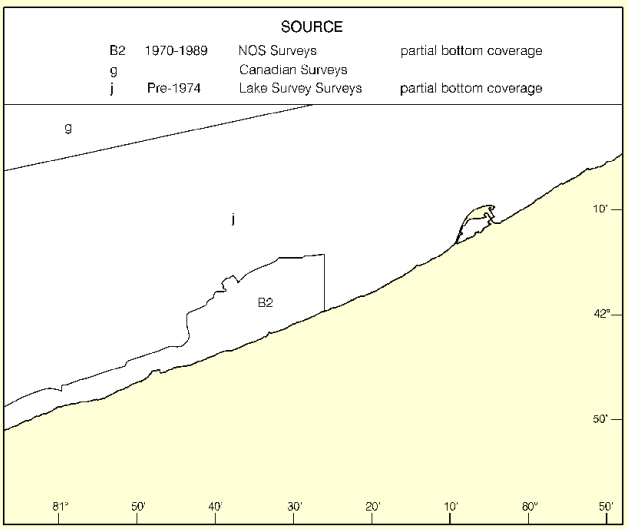
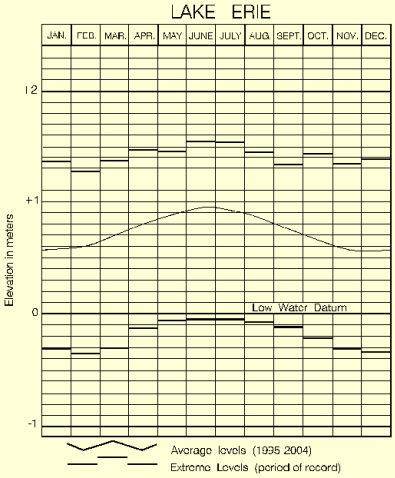


LAKE ERIE



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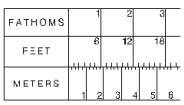
Joins page 19

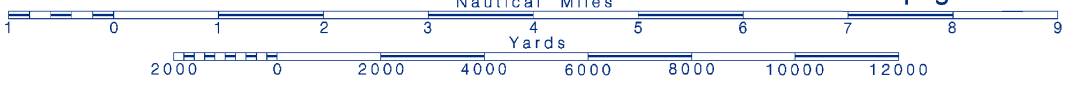
20' 10'

DEPTHS IN METERS



North

Printed at reduced scale. ~~SCALE 1:100,000~~



See Note on page 5.

Sailing coJoins page 15l magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

This chart was developed with the framework of international specifications in cooperation with the Canadian Hydrographic Service. Production was assisted by computer and machine engraving techniques.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

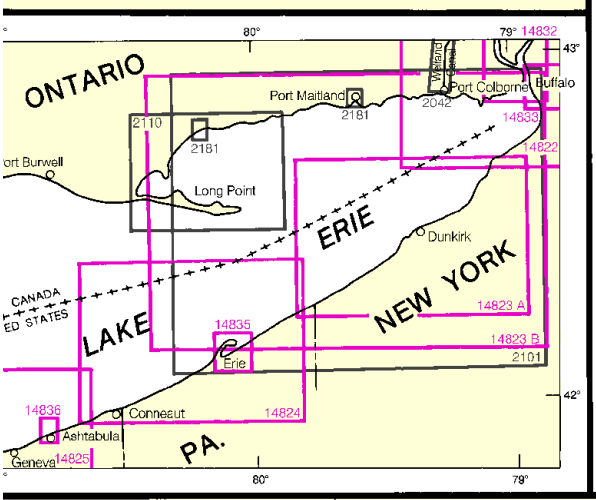
POTABLE WATER INTAKE (PWI)

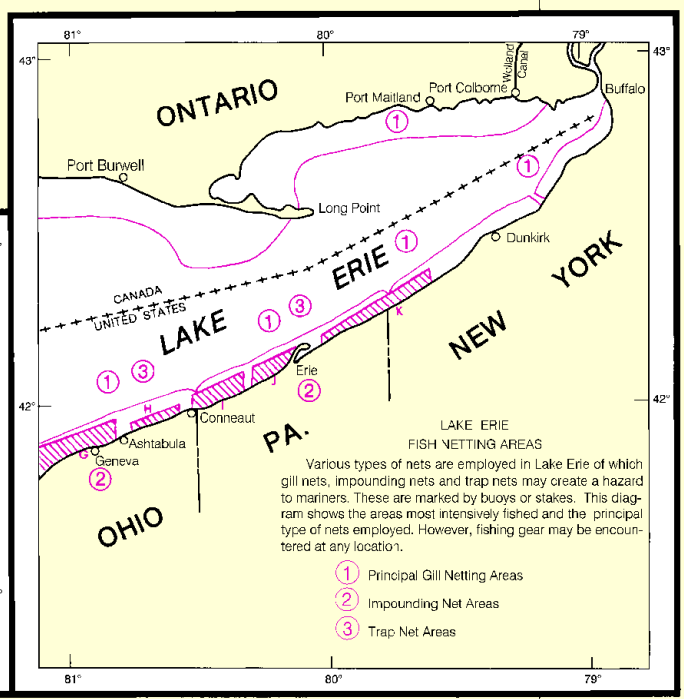
Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Surgeon General (21 CFR 1250.93). Consult U.S. Coast Pilot 6 for important supplemental information.

RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other privately maintained buoys are not all listed in the U.S. Coast Guard Light List.

Canadian charts are outlined in screened black and be obtained from the Canadian Hydrographic Service.





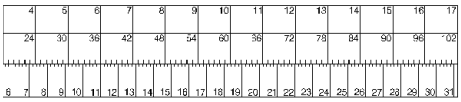
50'

40'

80°

50'

740.5 x 1090.9 mm



Erie to Geneva

DEPTHS IN METERS - SCALE 1:100,000

14828

LORAN-C OVERPRINTED

ED NO. 6
NSN 7642014010575
NGA REFERENCE NO. 14XCO14828

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, and harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 & 78A – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.
Coast Guard Search & Rescue (RCC) – 216-902-6117
Coast Guard Search & Rescue (Buffalo) – 716-843-9527
Canadian Coast Guard (RCC Trenton) – 1-800-267-7270 or 613-965-3870

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

Getting and Giving Help – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

NOAA, The Nation's Chartmaker

NOAA CHARTING PUBLICATIONS

Official NOAA Nautical Charts – NOAA surveys and charts the national and territorial waters of the U.S, including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: www.NauticalCharts.NOAA.gov.

Official Print-on-Demand Nautical Charts – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at www.OceanGrafix.com.

Official Electronic Navigational Charts (NOAA ENCs®) – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official Raster Navigational Charts (NOAA RNCs™) – RNCs are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official BookletCharts™ – BookletCharts™ are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is www.NauticalCharts.gov/bookletcharts.

Official PocketCharts™ – PocketCharts™ are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

Official U.S. Coast Pilot® – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at www.NauticalCharts.NOAA.gov.

Official On-Line Chart Viewer – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is www.NauticalCharts.gov/viewer.

Official Nautical Chart Catalogs – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm.

Internet Sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov, www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.